# Wahl® HEAT SPY®

## z50 INSPECTOR

**Designed for the pro, save and export thermal and digital images with easy report writing software.**

## z30 DETECTOR

**Designed for on the spot routine maintenance inspections.**

---

**First upgradeable camera *after purchase*.** Maximize scalability by upgrading your camera with up to 15 configurations - *at any time!*

**First *user* upgradeable camera.** Maximize value by easily upgrading your z30 Detector to a z50 Inspector - *in the field!*

**First extended warranty plan to *include*** annual recalibration, inspection and firmware upgrades. Maximize performance and *increase the life of your Heat Spy!* (Excludes Battery and SD Card)

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### FEATURES

**Upgrade both models** with a High Temperature option, Wide Angle Lens and / or Telephoto Lens - at any time!

**"z" speed at 30 Hertz captures clear, sharp images!** (USA Customers only)

**Camera acclimates quickly**. Sudden ambient temperature changes won't slow you down!

**Every Pixel is individually calibrated!**

**"Double Vision" provides simultaneous capture** of both a Thermal and Digital picture, and can include up to a 45 second voice recording. (z50 Series only)

**Hands-free flashlight** (optional) screws into camera to brighten dark areas for clear digital pictures. Operates on it's own internal battery, enabling longer camera battery life.

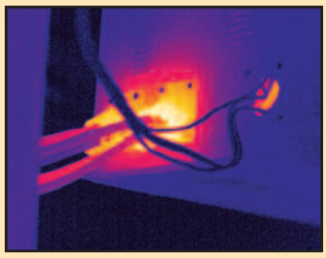
**Lease the camera at 0% interest** (Call Customer Service for requirements, USA Customers only)

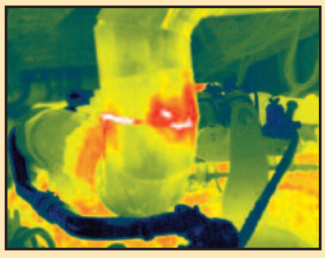
We are so confident that you will love this new camera that we are offering a 48 hour money back guarantee! (USA Customers only)

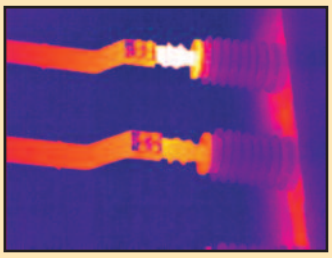
Call us now! You could win a Free Heat Spy, upgrade or accessory!

***Buy it, you'll like it; 48 hour Money Back Guarantee****

* USA Customers only







*Find problems quickly, easily, and safely with the Wahl Heat Spy.*

*Heat Spy® is a registered trademark of Wahl Instruments, Inc.*

*Specifications subject to change without notice*

**www.wahlheatspy.com**

**Palmer Wahl • 234 Old Weaverville Road • Asheville • North Carolina • 28804**

**sales@palmerwahl.com • Phone: (800) 421-2853 • FAX: (828) 658-0728**

PW1280z
October 2011

**APPLICATIONS**
**for many Industries**

- Aerospace
- Automotive
- Asphalt & Roofing
- Breweries
- Beverage Processing
- Canning
- Chemical
- Coal & Mineral Mining
- Condition Monitoring
- Confectionery
- Cosmetics
- Dairy Processing
- Electrical
- Energy Audits
- Facilities Management
- Fire Fighting
- Food Processing
- Food Service
- Glass
- Government
- Home Inspection
- HVAC & Irrigation
- Meat Processing
- Mechanical
- Military
- Natural Gas
- Oil & Petroleum
- Petrochemical
- Pharmaceutical
- Pipe, Valve & Fitting
- Plumbing
- Police Search/Rescue
- Poultry Processing
- Power Generation
- Pulp & Paper
- Research & Development
- Plastics
- Rubber
- Sanitary Processing
- Semiconductor
- Steel & Iron
- Telecommunications
- Test & Measurement
- Verification
- Water & Wastewater
- Weatherization

*and more!*

TWO YEAR 2 WARRANTY

**IP54**

| Specifications | z30 Series Detector | z50 Series Inspector |
|---|---|---|
| UPGRADE Model | Upgrade to a z50 Inspector - in the Field! | Full Feature Series |
| Measurement Range | -4° to 356°F (-20° to 180°C) | |
| UPGRADE to High Temperature | 212° to 1112°F (100° to 600°C) (User Upgradeable in the Field) | |
| Temperature Accuracy | Greater of ± 2% of reading or ± 2°C | |
| Temperature Scale | User Selectable °C, °F, and K | |
| Temperature Cursors | 1 Hot Seeking, 1 Cold Seeking, 2 Adjustable | |
| Field of View | 17.5° x 13° | |
| Resolution/Pixel Size | 160 X 120 | |
| Spectral Range | 8-14µm | |
| Thermal Sensitivity | 0.1°C @ 30°C | |
| LCD Display | High Resolution 3.5" Color LCD, 640 x 480 | |
| Digital Zoom | 2 X Zoom | |
| Frame Rate | 30 Hz (USA only) (9Hz Models a30 and a50, International) | |
| Display Color Palettes | **4 Color Palettes:** Ironbow; Negative Grayscale; Rainbow Blue-Red; High Contrast Blue-Yellow | **11 Color Palettes:** Ironbow; Negative Grayscale; Positive Grayscale; Amber; Hot Metal; Cool Metal; Rainbow Green-Red; Rainbow Blue-Red; Rainbow Black-White; High Contrast Blue-Yellow; and High Contrast Violet-White |
| Image Adjustment | Auto Ranging / Manual Level and Span / Adjustable Display Brightness Control | |
| Languages | **11 Languages:** English; Spanish; French; German; Italian; Portuguese; Korean; Japanese; Russian; Simplified Chinese; and Traditional Chinese | |
| Laser Pointer | Class 2 < 1mW / 635nm, Red | |
| Self Calibration | Auto Calibration with Adjustable Time Interval or Push Button Manual | |
| Measurement Mode | Spots, Delta T | Spots, Areas, Lines, Isotherms, Delta T |
| Number of Measurement Areas | N/A | 3 |
| Emissivity Range | Adjustable from 0.01 to 1.00 | Adjustable from 0.01 to 1.00 with Built-in Emissivity Table |
| T Reflect | Manual Adjustment | |
| T Correct | N/A | Manual Adjustment |
| Digital Camera | N/A | 1.3 Megapixel |
| Thermal/Digital Image | N/A | Toggle between Thermal and Digital |
| Alarm | High Temperature Audible and Visible Alarm | High Temperature Audible and Visible Alarm Isotherm Visible Alarm |
| UPGRADE Optics | Wide Angle (35° x 26° FOV), and/or Telephoto (8.75° x 6.5° FOV) (Factory Upgradeable options) | |
| Report Analysis Software | N/A | Yes |
| Image Storage | N/A | 2GB SD / Time Stamped |
| Freeze Frame/Save Image | Freeze Frame only | Freeze Frame and Save Image, Thermal and/or Digital to SD Card |
| Storage Mode | N/A | Manual Single Image Save or Programmable Auto Save to SD Card |
| Voice Annotation | N/A | Maximum 45s per image |
| File Format (Thermal) | N/A | JPEG plus Temperature in 14 bit data |
| File Format (Visual) | N/A | JPEG |
| Video Output | User Selectable PAL and NTSC | |
| Dimensions / Weight (w/o battery) | Width: 4.5 in. (115mm) x Length: 5.9 in. (150mm) x Height: 9 in. (230mm) / 1.65 lbs (0.75 Kg) | |
| Power / Operating Time | 1 Rechargeable Lithium ion Battery / 2 Batteries provide 6.0 plus hours operation | |
| Charging System | External AC Mains Battery Charger included; In Camera Charging with optional AC Battery Charger | |
| Ambient Operating Temperature | 5° to 122°F (-15° to 50°C) | |
| Storage Temperature | -4° to 140°F (-20° to 60°C) | |
| Humidity | ≤ 90% non-condensing | |
| Included Accessories | Carrying Case; Wrist Strap; Lens Cap; 2 Rechargeable Lithium Ion Batteries; Video Out Cable; AC Mains Battery Charger; Report & Analysis Software; User Manual. 50 Series only: SD Card and Reader. | |
| Options | NIST Traceable Certificate of Conformance; Extended Warranty; Damage Protection Plan; Hands Free Flashlight; Auxillary Charging Pkg includes: Car Charger, AC mains charger, and International Plugs | |

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PW1280z
October 2011

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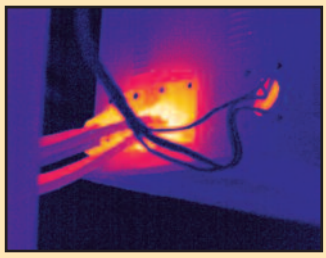

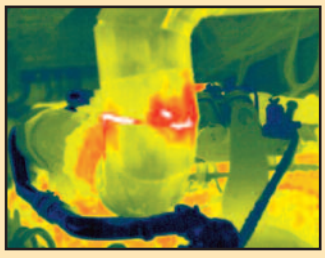

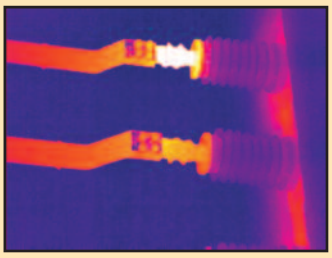

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PW1280a
October 2011

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- Facilities Management
- Fire Fighting
- Food Processing
- Food Service
- Glass
- Government
- Home Inspection
- HVAC & Irrigation
- Meat Processing
- Mechanical
- Military
- Natural Gas
- Oil & Petroleum
- Petrochemical
- Pharmaceutical
- Pipe, Valve & Fitting
- Plumbing
- Police Search/Rescue
- Poultry Processing
- Power Generation
- Pulp & Paper
- Research & Development
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| Temperature Scale | User Selectable °C, °F, and K | |
| Temperature Cursors | 1 Hot Seeking, 1 Cold Seeking, 2 Adjustable | |
| Field of View | 17.5° x 13° | |
| Resolution/Pixel Size | 160 X 120 | |
| Spectral Range | 8-14µm | |
| Thermal Sensitivity | 0.1°C @ 30°C | |
| LCD Display | High Resolution 3.5" Color LCD, 640 x 480 | |
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| Frame Rate | 9 Hz | |
| Display Color Palettes | **4 Color Palettes:** Ironbow; Negative Grayscale; Rainbow Blue-Red; High Contrast Blue-Yellow | **11 Color Palettes:** Ironbow; Negative Grayscale; Positive Grayscale; Amber; Hot Metal; Cool Metal; Rainbow Green-Red; Rainbow Blue-Red; Rainbow Black-White; High Contrast Blue-Yellow; and High Contrast Violet-White |
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| Image Storage | N/A | 2GB SD / Time Stamped |
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| File Format (Thermal) | N/A | JPEG plus Temperature in 14 bit data |
| File Format (Visual) | N/A | JPEG |
| Video Output | User Selectable PAL and NTSC | |
| Dimensions/Weight w/o battery | Width: 4.5 in. (115mm) x Length: 5.9 in. (150mm) x Height: 9 in. (230mm) / 1.65 lbs (0.75 Kg) | |
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| Charging System | External AC Mains Battery Charger included; In Camera Charging with optional AC Battery Charger | |
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| Humidity | ≤ 90% non-condensing | |
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| Options | NIST Traceable Certificate of Conformance; Extended Warranty; Damage Protection Plan; Hands Free Flashlight; Auxillary Charging Pkg includes: Car Charger, AC mains charger, & International Plugs | |

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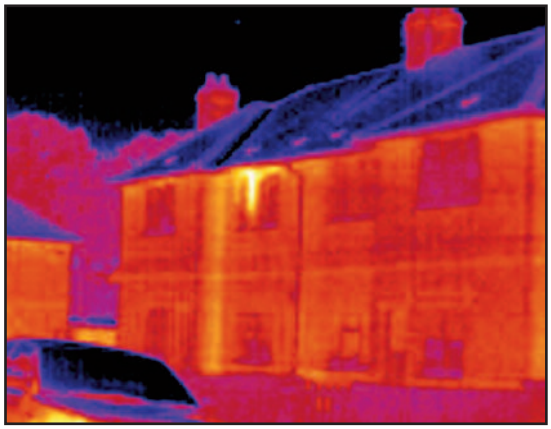
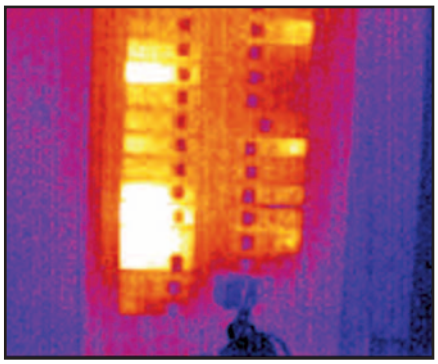
PW1280a
October 2011

# Wahl's NEW Heat Spy® HSI3000B Camera for Building Inspections

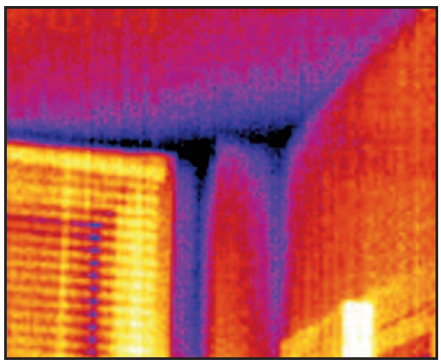


Detect insulation voids in buildings.

## Easily detect problems with new increased sensitivity and reduced temperature range!



Find possible dangers such as over-heated circuit breakers.



Detect heat loss from improperly insulated windows or doors.

### Features of the New HSI3000B Camera

- Highest thermal sensitivity (NETD ≤50mK) in its price range.
- Best screen resolution (160 x 120) in its class. Image details are shown clearly and precisely on the large, bright, 3-1/2" screen.
- Adjustable emissivity for maximum accuracy.
- ON BOARD dual cursors, moveable anywhere on the image. Automatically seek hot & cold spots.
- Fully radiometric - capture detailed, high quality images for LIVE analysis of any of 19,200 pixels in the entire image.
- Portable, with long life rechargeable battery.
- Proprietary reporting software (included) documents all of your work quickly and easily.
- Easy Report software for quick image analysis.
- Store over 1,000 images on included SD Card.
- Download images directly to PC via USB port or SD card.
- Rugged, lightweight, and comfortable to use for any application.

### Applications

- Building Envelope
- Building Surveying
- Commercial Refrigeration
- Condition Monitoring
- Electrical
- Energy Loss
- Insect Infestation
- Insulation
- Mold Issues
- Plumbing
- Roofing

Associate member of RESNET® Residential Energy Services Network

CE

TWO YEAR 2 WARRANTY

*Calibration Services Available*



PALMER Wahl INSTRUMENTATION GROUP
*Continued Innovation Since 1836*
*ISO 9001:2008 CERTIFIED*

(800) 421-2853 • FAX (828) 658-0728 • www.palmerwahl.com

PW1278
11/10

| NEW! WAHL Heat Spy® HSI3000B SERIES SPECIFICATIONS | |
|---|---|
| **Application** | **BUILDING INSPECTION** |
| **Measurement Range** | -4° to 257°F (-20° to 125°C) |
| **Field of View** | 20° x 15° |
| **Focus** | Manual Focus with 2X Digital Zoom |
| **Minimum Focus** | 11.81" (30cm) |
| **Spectral Response** | 8 µm to 14 µm |
| **Thermal Sensitivity** | NETD ≤ 50 mK (0.05°C) @ 23°C ambient and 30°C Scene Temperature |
| **Frame Rate** | 9 Hz Frame Rate |
| **Detector** | Advanced high resolution 160 x 120 detector with 19,200 pixels |
| **Image Storage** | Over 1,000 images on supplied SD Card (or MMC) Multiple image storage and retrieval at full digital resolution. Image browser with full image adjustment. |
| **Accuracy** | The greater of ± 2°C or ± 2% of reading in °C |
| **Display** | 3-1/2" Color LCD and LED Backlight with high resolution images, show images clearly and precisely. |
| **Color Palettes** | 4 Color Palettes: Rainbow, Ironbow, High Contrast, and Grayscale |
| **Laser Pointer** | Trigger activated Class II Laser to highlight the center of the imaged area |
| **Radiometry** | Dual moveable temperature measurement cursors, with auto seek on the hottest and coldest points. Delta temperature measurement. |
| **Emissivity Correction** | User selectable 0.2 to 1.0 in steps of 0.01 with reflected ambient temperature compensation. |
| **Ambient Operating Range** | 5° to 113°F (-15° to +50°C) |
| **Storage Range** | -4° to 158°F (-20° to +70°C) |
| **Readout** | °C, °F or K |
| **IP Rating** | IP42 |
| **MIL SPECS** | MIL-PRF-288-F Class 2. Vibration: Section 4.5.5.3.1. Shock: Section 4.5.5.4.1. Drop: Section 4.5.5.4.2 |
| **Humidity** | 10% to 90% non-condensing |
| **Power** | Field rechargeable, replaceable, high capacity, Lithium-ion batteries with up to 6 hrs continuous operation, AC Adapter included. Battery charge indicator. |
| **Settings and Controls** | ON/OFF soft power control; user selectable, and auto adjustable span and level control. |
| **Interfaces** | USB Type B |
| **Housing** | Impact Resistant Plastic with Protective Rubber Boot and Wrist Strap |
| **Dimensions** | 9.05 x 4.72 x 4.33 inches (230mm x 120mm x 110mm) |
| **Weight (with Battery)** | approx. 1.65 lbs (0.75kg) |
| **Mounting** | Hand Held & Tripod Mounting |
| **Included Accessories** | Easy Report & Report Writer Software, Rubber Boot, Carrying Case, Wrist Strap, Rechargeable Battery, AC Adapter, Car Charger, User Manual and Image Analysis Software CD, USB Cable, SD Card, and SD Card Reader. |
| **Optional Accessories** | Desktop Charger, Car Charger, Magnifying Eye Piece/Sun Shade, Rubber Boot, and additional Rechargeable Battery. Also, Portable Calibration Black Body |

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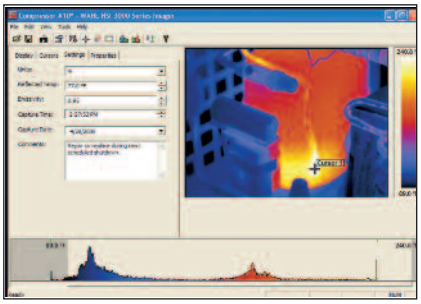
# Wahl Image Analysis Software

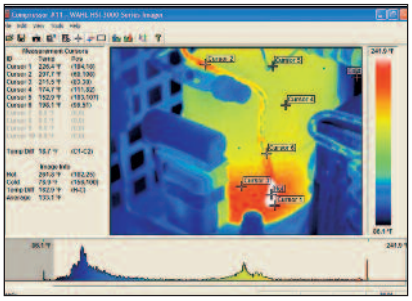
- ***Download and View images***
- ***Enhance image details***
- ***Perform accurate detailed temperature analysis***
- ***Add comments***

Wahl Heat Spy® HSI3000B Series Thermal Imagers include easy to use Heat Spy® image analysis software, which allows the user to manipulate, analyze, and store thermal images. Image parameters can be changed or corrected even after downloading.

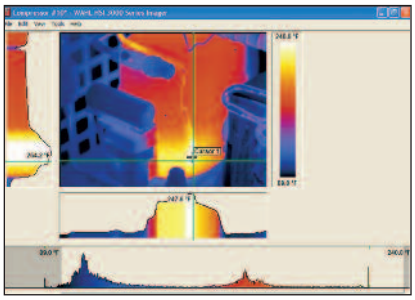
*No other software package can do this!*



*Add comments to the image: select either °F, °C or °K: adjust the target object emissivity: adjust span and range temperature scale settings.*



*Placing measurement cursors anywhere in the image creates a list that includes the spot measurement, pixel position, and the difference between measurement cursors 1 and 2. Also displays the hottest and coldest measurements in the scene, their difference, and the average.*



*2D profile displays a graphical representation of the temperature values along the selectable vertical and horizontal lines.*

***Calibration Services Available***